

0590
012
Serial Number: 02/846,589

CRF Errors Corrected by the STS Systems Branch

OIPE

CRF Processing Date: _____
Edited by: _____
Verified by: _____ (STIC sta: _____)

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.
- ☐ Edited a format error in the Current Application Data section, specifically: **ENTERED**
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: _____
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: _____
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: _____
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included: _____
- ☐ Deleted extra, invalid, headings used by an applicant, specifically: _____
- ☒ Deleted: ☒ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as _____
- ☐ Inserted mandatory headings, specifically: _____
- ☐ Corrected an obvious error in the response, specifically: _____
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically: _____
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____
- ☐ Other: _____

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/846,589

DATE: 05/24/2001

TIME: 16:27:17

Input Set : A:\Cpg.pto

Output Set: C:\CRF3\05242001\I846589.raw

3 <110> APPLICANT: Famodu, Layo O.
 4 Simmons, Carl R.
 6 <120> TITLE OF INVENTION: Plant Aminoacyl-tRNA Synthetase
 8 <130> FILE REFERENCE: BB-1191
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/846,589
 C--> 11 <141> CURRENT FILING DATE: 2001-05-01
 13 <150> PRIOR APPLICATION NUMBER: 60/092,866
 W--> 14 <151> PRIOR FILING DATE: July 15, 1998
 16 <160> NUMBER OF SEQ ID NOS: 29
 18 <170> SOFTWARE: Microsoft Office 97
 20 <210> SEQ ID NO: 1
 21 <211> LENGTH: 1948
 22 <212> TYPE: DNA
 23 <213> ORGANISM: Zea mays
 25 <400> SEQUENCE: 1

26	cgcacgatag	cgcccgccgt	cgaccagagc	actcccccg	cgtcgccacg	atgtcgtctg	60
27	agcctccacc	cgccctcctt	gccgccgccc	gagaggaact	cgctgctgac	ctttccgccg	120
28	ctaccctcag	caagaagcag	cagaagaagg	acgcgaggaa	ggcggagaag	gcagagcagc	180
29	gccagcgta	gcagcagcag	cagcagcagc	cgccggacgc	cgaggaccgc	ttcgcggcca	240
30	actacggcga	ggccccgctc	gaggagatcc	agtcaaaggc	catctccggc	cgctcgtggt	300
31	cccatgtcgg	cgacctcgac	gactccgctg	cgggccgctc	cgctgcttatc	cgccggagccg	360
32	cgaggcccat	ccgtccgggtc	agcaagaaga	tggctttcgt	cgctgctgccc	cagagtatga	420
33	gcaccgtgca	gtgcgtgctc	gtcgccagcg	ccgacgccgg	cgtcagcacg	cagatgggtgc	480
34	gcttcgccac	cgccctcagc	aaggagtcca	tcgtcgacgt	tgagggcgtc	gtctccctcc	540
35	caaaggagcc	cctcaaggcc	accacacagc	aggttgagat	ccaagtgagg	aagatctatt	600
36	gcatcaatag	ggctattccg	acccttccaa	ttaaccttga	agatgcccgt	cggagtggag	660
37	cagattttga	gaaggctgaa	ttggctggag	aaaagcttgt	tcgcgttggc	caagataccc	720
38	gcttgaacta	cagagctatt	gatctacgaa	caccctcgaa	tcaagccata	ttccggatcc	780
39	agtgtcaagt	tgaatacaaa	tttagagatt	ttttgttgct	gaagaacttt	gtcgggatcc	840
40	acaccccaaa	attgatttct	ggatctagt	aaggggggtg	ggctgtattc	aagcttctgt	900
41	acaatgggtc	acctgcttgt	ttggcacaat	cccctcagtt	atacaagcaa	atggctatct	960
42	ctggtggttt	tgagcgagta	tttgaggtcg	gccctgtgtt	tagagcagaa	aattcaaaca	1020
43	cacacaggca	tctatgtgag	ttcgttggtc	ttgatgctga	aatggagatt	aaggagcatt	1080
44	atatttgagg	ctgtgacatt	atagatggct	tattcgtatc	aatattttaa	cacttgtctg	1140
45	aaaactgcaa	gaaagaactc	gaatcaataa	acaggcgagta	tccatttgaa	cctctgaagt	1200
46	atctagacaa	aacctttaag	ctcacttatg	aagaagggaat	tcaaatgttg	aagggaagccg	1260
47	gaacagaaat	cgagccctatg	ggtgacctca	ataccgaagc	tgagaaaaaa	cttggtcggc	1320
48	ttgtcaggga	aaagtatgac	acagattttt	tcactctgta	tcggtatcct	ttggctgtac	1380
49	gtccgttcta	caccatgcct	tggtatgaca	accagcgta	caccaattct	ttgatgtct	1440
50	tcattcgagg	cgaggagata	atatctggag	cacaaaggat	acacactcct	gagctgctgg	1500
51	ccaagcgcg	gacagagtgt	ggaatcgacg	tgagcaactat	ctcggcctac	attgaatcct	1560
52	tcagctatgg	cggtccgcca	cacggcggtt	tcgggggtgg	tttgagagg	gtggtgatgc	1620
53	tggtctgtgc	cctgaacaac	atcaggaaga	cctccctgtt	cccgcgcgac	ccgcagaggc	1680
54	tcgtgccgta	agtttctgat	tccaagcctg	agtcttcgag	tggtctacgg	agcagatccg	1740
55	atgttggtac	catcagagtt	gacttgcaat	cttagctcct	gaacctggcg	gttacctgtg	1800
56	atcagagttc	ctgttgtaatt	tcacaaaagc	ctacttggtc	ctaataagatt	gctgcaacca	1860
57	acaatattac	gacctttctg	ggcttttctt	cccgcctcac	gtgttattct	ggtctatact	1920

RAW SEQUENCE LISTING

DATE: 05/24/2001

PATENT APPLICATION: US/09/846,589

TIME: 16:27:17

Input Set : A:\Cpg.pto

Output Set: C:\CRF3\05242001\I846589.raw

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58 tgtttttaag tgcaagtatt gctcagtt 1948
60 <210> SEQ ID NO: 2
61 <211> LENGTH: 546
62 <212> TYPE: PRT
63 <213> ORGANISM: Zea mays
65 <400> SEQUENCE: 2
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67 1 5 10 15
69 Leu Ala Ala Asp Leu Ser Ala Ala Thr Leu Ser Lys Lys Gln Gln Lys
70 20 25 30
72 Lys Asp Ala Arg Lys Ala Glu Lys Ala Glu Gln Arg Gln Arg Gln Gln
73 35 40 45
75 Gln Gln Gln Gln Gln Pro Ala Asp Ala Glu Asp Pro Phe Ala Ala Asn
76 50 55 60
78 Tyr Gly Glu Val Pro Val Glu Glu Ile Gln Ser Lys Ala Ile Ser Gly
79 65 70 75 80
81 Arg Ser Trp Ser His Val Gly Asp Leu Asp Asp Ser Ala Ala Gly Arg
82 85 90 95
84 Ser Val Leu Ile Arg Gly Ala Ala Gln Ala Ile Arg Pro Val Ser Lys
85 100 105 110
87 Lys Met Ala Phe Val Val Leu Arg Gln Ser Met Ser Thr Val Gln Cys
88 115 120 125
90 Val Leu Val Ala Ser Ala Asp Ala Gly Val Ser Thr Gln Met Val Arg
91 130 135 140
93 Phe Ala Thr Ala Leu Ser Lys Glu Ser Ile Val Asp Val Glu Gly Val
94 145 150 155 160
96 Val Ser Leu Pro Lys Glu Pro Leu Lys Ala Thr Thr Gln Gln Val Glu
97 165 170 175
99 Ile Gln Val Arg Lys Ile Tyr Cys Ile Asn Arg Ala Ile Pro Thr Leu
100 180 185 190
102 Pro Ile Asn Leu Glu Asp Ala Ala Arg Ser Glu Ala Asp Phe Glu Lys
103 195 200 205
105 Ala Glu Leu Ala Gly Glu Lys Leu Val Arg Val Gly Gln Asp Thr Arg
106 210 215 220
108 Leu Asn Tyr Arg Ala Ile Asp Leu Arg Thr Pro Ser Asn Gln Ala Ile
109 225 230 235 240
111 Phe Arg Ile Gln Cys Gln Val Glu Asn Lys Phe Arg Asp Phe Leu Leu
112 245 250 255
114 Ser Lys Asn Phe Val Gly Ile His Thr Pro Lys Leu Ile Ser Gly Ser
115 260 265 270
117 Ser Glu Gly Gly Ala Ala Val Phe Lys Leu Leu Tyr Asn Gly Gln Pro
118 275 280 285
120 Ala Cys Leu Ala Gln Ser Pro Gln Leu Tyr Lys Gln Met Ala Ile Ser
121 290 295 300
123 Gly Gly Phe Glu Arg Val Phe Glu Val Gly Pro Val Phe Arg Ala Glu
124 305 310 315 320
126 Asn Ser Asn Thr His Arg His Leu Cys Glu Phe Val Gly Leu Asp Ala
127 325 330 335
129 Glu Met Glu Ile Lys Glu His Tyr Phe Glu Val Cys Asp Ile Ile Asp

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/846,589

DATE: 05/24/2001

TIME: 16:27:17

Input Set : A:\Cpg.pto

Output Set: C:\CRF3\05242001\I846589.raw

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130          340          345          350
132 Gly Leu Phe Val Ser Ile Phe Lys His Leu Ser Glu Asn Cys Lys Lys
133          355          360          365
135 Glu Leu Glu Ser Ile Asn Arg Gln Tyr Pro Phe Glu Pro Leu Lys Tyr
136          370          375          380
138 Leu Asp Lys Thr Phe Lys Leu Thr Tyr Glu Glu Gly Ile Gln Met Leu
139 385          390          395          400
141 Lys Glu Ala Gly Thr Glu Ile Glu Pro Met Gly Asp Leu Asn Thr Glu
142          405          410          415
144 Ala Glu Lys Lys Leu Gly Arg Leu Val Arg Glu Lys Tyr Asp Thr Asp
145          420          425          430
147 Phe Phe Ile Leu Tyr Arg Tyr Pro Leu Ala Val Arg Pro Phe Tyr Thr
148          435          440          445
150 Met Pro Cys Tyr Asp Asn Pro Ala Tyr Thr Asn Ser Phe Asp Val Phe
151          450          455          460
153 Ile Arg Gly Glu Glu Ile Ile Ser Gly Ala Gln Arg Ile His Thr Pro
154 465          470          475          480
156 Glu Leu Leu Ala Lys Arg Ala Thr Glu Cys Gly Ile Asp Val Ser Thr
157          485          490          495
159 Ile Ser Ala Tyr Ile Glu Ser Phe Ser Tyr Gly Val Pro Pro His Gly
160          500          505          510
162 Gly Phe Gly Val Gly Leu Glu Arg Val Val Met Leu Phe Cys Ala Leu
163          515          520          525
165 Asn Asn Ile Arg Lys Thr Ser Leu Phe Pro Arg Asp Pro Gln Arg Leu
166          530          535          540
168 Val Pro
169 545

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171 <210> SEQ ID NO: 3

172 <211> LENGTH: 730

173 <212> TYPE: DNA

174 <213> ORGANISM: Oryza sativa

176 <400> SEQUENCE: 3

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178 aatcgaaccc atgggtgacc tcaacactga agctgagaaa aaactaggcc ggcttgtaa 120
179 ggagaagtat ggaacagaat ttttcacct ctatcggtat cctttggctg tgcgtccctt 180
180 ctacaccatg ccttggttatg acaaccacg ttacagtaac tcttttgatg tctttattcg 240
181 aggagaggaa ataatatctg gagcacaag aatacattta ccagagctat tgacgaaacg 300
182 tgcaacagag tgtggaattg atgcgagtac tatttcacat tatatcgaat cggtcagcta 360
183 tgggtgcacct cctcatggtg gttttggtgt cggcctggag aggggtgtaa tgctgttctg 420
184 cgccctaaac aacatcagga agacatcact tttccctcgc gatccacaaa ggctggtgcc 480
185 ataatttgct ttttttccca agagcaaggt ttggactcag tacggactgg gcagttttcc 540
186 tcggctggtt tttttacctg gacattatgt tcgtatttat taatgtgctg tactgcaaaa 600
187 gctgctcctt tccacaacat ttggaatagt tgccgataca tttggaatag ggctcaacgt 660
188 tggcggttgatg atttcgttga tgatcccgtt attcgttaaca aaaaaaaaaa aaaaaaaaaa 720
189 aaaaaaaaaa 730

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191 <210> SEQ ID NO: 4

192 <211> LENGTH: 148

193 <212> TYPE: PRT

194 <213> ORGANISM: Oryza sativa

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/846,589

DATE: 05/24/2001

TIME: 16:27:17

Input Set : A:\Cpg.pto

Output Set: C:\CRF3\05242001\I846589.raw

196 <400> SEQUENCE: 4

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197 Met Leu Lys Glu Ala Gly Thr Glu Ile Glu Pro Met Gly Asp Leu Asn
198   1           5           10           15
200 Thr Glu Ala Glu Lys Lys Leu Gly Arg Leu Val Lys Glu Lys Tyr Gly
201           20           25           30
203 Thr Glu Phe Phe Ile Leu Tyr Arg Tyr Pro Leu Ala Val Arg Pro Phe
204           35           40           45
206 Tyr Thr Met Pro Cys Tyr Asp Asn Pro Ala Tyr Ser Asn Ser Phe Asp
207           50           55           60
209 Val Phe Ile Arg Gly Glu Glu Ile Ile Ser Gly Ala Gln Arg Ile His
210           65           70           75           80
212 Leu Pro Glu Leu Leu Thr Lys Arg Ala Thr Glu Cys Gly Ile Asp Ala
213           85           90           95
215 Ser Thr Ile Ser Ser Tyr Ile Glu Ser Phe Ser Tyr Gly Ala Pro Pro
216           100          105          110
218 His Gly Gly Phe Gly Val Gly Leu Glu Arg Val Val Met Leu Phe Cys
219           115          120          125
221 Ala Leu Asn Asn Ile Arg Lys Thr Ser Leu Phe Pro Arg Asp Pro Gln
222           130          135          140
224 Arg Leu Val Pro
225 145

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227 <210> SEQ ID NO: 5

228 <211> LENGTH: 1109

229 <212> TYPE: DNA

230 <213> ORGANISM: Glycine max

232 <400> SEQUENCE: 5

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234 tacggtgagc ccgcagatgg tgaagttcgc cgctgcactc agccgcgagt ccatcgtcga 120
235 tgtcgaaggc gttgtttcga tcccctccgc tcccatcaaa ggcgccacac aacagggtgga 180
236 aattcaagtg aggaagttgt attgtgtcag tagggctgta cctactctgc ctattaatct 240
237 tgaggatgct gctcgaagtg aagttgaaat cgagacggct cttcaggctg gtgagcaact 300
238 tgttcgtggt aatcaggata cacgtctgaa ctttaggggtg cttgatgtgc gaacgccagc 360
239 taatcaaggg attttccgca ttcagtctca agttggaaat gcgttttagac aattcttatt 420
240 atctgaaggt ttttgtgaaa tccacactcc aaagttgata gctggatcta gtgaggagg 480
241 agctgctggt ttttagactgg actacaaagg tcaacctgca tgcctggccc agtcaccta 540
242 gcttcacaag caaatgtcta tttgtggaga ttttggccgt gtttttgaga ttggtcctgt 600
243 gtttagagca gaagattcct acactcacag gcatctgtgt gagtttacag gtcttgatgt 660
244 tgaaatggag attaagaagc attactttga gggtatggat atagtcgata gattgtttgt 720
245 cgcaatggtt gacagtttga accagaattg taagaaggat ctggaagctg tcgggtctca 780
246 gtatccattt gaacctttga agtatctgcg gacgacacta cggcttacat atgaagaagg 840
247 gattcagatg ctcaaggatg ttggagtaga aattgaacct tatggtgact tgaatactga 900
248 agcggaaagg aaattgggtc agctagtctc agagaaatat ggcacagagt tctatattct 960
249 tcaccggtac cctttggctg taaggccatt ctatacaatg ccttgctacg acaatcctgc 1020
250 atacagcaac togtttgatg tctttattcg aggtgaggag ataatttcag gagctcagcg 1080
251 tgttcatgtg ccagaatttt tggaacaag 1109

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253 <210> SEQ ID NO: 6

254 <211> LENGTH: 369

255 <212> TYPE: PRT

256 <213> ORGANISM: Glycine max

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/846,589

DATE: 05/24/2001

TIME: 16:27:17

Input Set : A:\Cpg.pto

Output Set: C:\CRF3\05242001\I846589.raw

258 <400> SEQUENCE: 6

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259 His Glu Val Ile Arg Glu Asn Gly Phe Thr Val Gln Cys Leu Val Gln
260 1 5 10 15
262 Ala Gln Ala Asp Thr Val Ser Pro Gln Met Val Lys Phe Ala Ala Ala
263 20 25 30
265 Leu Ser Arg Glu Ser Ile Val Asp Val Glu Gly Val Val Ser Ile Pro
266 35 40 45
268 Ser Ala Pro Ile Lys Gly Ala Thr Gln Gln Val Glu Ile Gln Val Arg
269 50 55 60
271 Lys Leu Tyr Cys Val Ser Arg Ala Val Pro Thr Leu Pro Ile Asn Leu
272 65 70 75 80
274 Glu Asp Ala Ala Arg Ser Glu Val Glu Ile Glu Thr Ala Leu Gln Ala
275 85 90 95
277 Gly Glu Gln Leu Val Arg Val Asn Gln Asp Thr Arg Leu Asn Phe Arg
278 100 105 110
280 Val Leu Asp Val Arg Thr Pro Ala Asn Gln Gly Ile Phe Arg Ile Gln
281 115 120 125
283 Ser Gln Val Gly Asn Ala Phe Arg Gln Phe Leu Leu Ser Glu Gly Phe
284 130 135 140
286 Cys Glu Ile His Thr Pro Lys Leu Ile Ala Gly Ser Ser Glu Gly Gly
287 145 150 155 160
289 Ala Ala Val Phe Arg Leu Asp Tyr Lys Gly Gln Pro Ala Cys Leu Ala
290 165 170 175
292 Gln Ser Pro Gln Leu His Lys Gln Met Ser Ile Cys Gly Asp Phe Gly
293 180 185 190
295 Arg Val Phe Glu Ile Gly Pro Val Phe Arg Ala Glu Asp Ser Tyr Thr
296 195 200 205
298 His Arg His Leu Cys Glu Phe Thr Gly Leu Asp Val Glu Met Glu Ile
299 210 215 220
301 Lys Lys His Tyr Phe Glu Val Met Asp Ile Val Asp Arg Leu Phe Val
302 225 230 235 240
304 Ala Met Phe Asp Ser Leu Asn Gln Asn Cys Lys Lys Asp Leu Glu Ala
305 245 250 255
307 Val Gly Ser Gln Tyr Pro Phe Glu Pro Leu Lys Tyr Leu Arg Thr Thr
308 260 265 270
310 Leu Arg Leu Thr Tyr Glu Glu Gly Ile Gln Met Leu Lys Asp Val Gly
311 275 280 285
313 Val Glu Ile Glu Pro Tyr Gly Asp Leu Asn Thr Glu Ala Glu Arg Lys
314 290 295 300
316 Leu Gly Gln Leu Val Ser Glu Lys Tyr Gly Thr Glu Phe Tyr Ile Leu
317 305 310 315 320
319 His Arg Tyr Pro Leu Ala Val Arg Pro Phe Tyr Thr Met Pro Cys Tyr
320 325 330 335
322 Asp Asn Pro Ala Tyr Ser Asn Ser Phe Asp Val Phe Ile Arg Gly Glu
323 340 345 350
325 Glu Ile Ile Ser Gly Ala Gln Arg Val His Val Pro Glu Phe Leu Glu
326 355 360 365
328 Gln
331 <210> SEQ ID NO: 7

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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/846,589

DATE: 05/24/2001

TIME: 16:27:18

Input Set : A:\Cpg.pto

Output Set: C:\CRF3\05242001\I846589.raw

L:10 M:270 C: Current Application Number differs, Replaced Application Number
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:14 M:256 W: Invalid Numeric Header Field, Wrong Prior FILING DATE:YYYY-MM-DD

OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/846,589

DATE: 05/14/2001

TIME: 12:50:55

Input Set : A:\BB-1191 DIV SEQ LIST.txt

Output Set: N:\CRF3\05142001\I846589.raw

3 <110> APPLICANT: Famodu, Layo O.
 4 Simmons, Carl R.
 6 <120> TITLE OF INVENTION: Plant Aminoacyl-tRNA Synthetase
 8 <130> FILE REFERENCE: BB-1191
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/846,589
 C--> 11 <141> CURRENT FILING DATE: 2001-05-01
 13 <150> PRIOR APPLICATION NUMBER: 60/092,866
 W--> 14 <151> PRIOR FILING DATE: July 15, 1998
 16 <160> NUMBER OF SEQ ID NOS: 29
 18 <170> SOFTWARE: Microsoft Office 97

Does Not Comply
 Corrected Diskette Needed

p. 2

ERRORED SEQUENCES

1753 <210> SEQ ID NO: 29
 1754 <211> LENGTH: 419
 1755 <212> TYPE: PRT
 1756 <213> ORGANISM: Bacillus caldotenax
 1758 <400> SEQUENCE: 29
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 1760 1 5 10 15
 1762 Thr Asp Glu Asp Gly Leu Arg Lys Leu Asn Glu Glu Arg Val Thr
 1763 20 25 30
 1765 Leu Tyr Cys Gly Phe Asp Pro Thr Ala Asp Ser Leu His Ile Gly Asn
 1766 35 40 45
 1768 Leu Ala Ala Ile Leu Thr Leu Arg Arg Phe Gln Gln Ala Gly His Arg
 1769 50 55 60
 1771 Pro Ile Ala Leu Val Gly Gly Ala Thr Gly Leu Ile Gly Asp Pro Ser
 1772 65 70 75 80
 1774 Gly Lys Lys Ser Glu Arg Thr Leu Asn Ala Lys Glu Thr Val Glu Ala
 1775 85 90 95
 1777 Trp Ser Ala Arg Ile Lys Glu Gln Leu Gly Arg Phe Leu Asp Phe Glu
 1778 100 105 110
 1780 Ala Asp Gly Asn Pro Ala Lys Ile Lys Asn Asn Tyr Asp Trp Ile Gly
 1781 115 120 125
 1783 Pro Leu Asp Val Ile Thr Phe Leu Arg Asp Val Gly Lys His Phe Ser
 1784 130 135 140
 1786 Val Asn Tyr Met Met Ala Lys Glu Ser Val Gln Ser Arg Ile Glu Thr
 1787 145 150 155 160
 1789 Gly Ile Ser Phe Thr Glu Phe Ser Tyr Met Met Leu Gln Ala Tyr Asp
 1790 165 170 175
 1792 Phe Leu Arg Leu Tyr Glu Thr Glu Gly Cys Arg Leu Gln Ile Gly Gly
 1793 180 185 190
 1795 Ser Asp Gln Trp Gly Asn Ile Thr Ala Gly Leu Glu Leu Ile Arg Lys
 1796 195 200 205
 1798 Thr Lys Gly Glu Ala Arg Ala Phe Gly Leu Thr Ile Pro Leu Val Thr
 1799 210 215 220

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/846,589

DATE: 05/14/2001

TIME: 12:50:55

Input Set : A:\BB-1191 DIV SEQ LIST.txt

Output Set: N:\CRF3\05142001\I846589.raw

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1801 Lys Ala Asp Gly Thr Lys Phe Gly Lys Thr Glu Ser Gly Thr Ile Trp
1802 225                230                235                240
1804 Leu Asp Lys Glu Lys Thr Ser Pro Tyr Glu Phe Tyr Gln Phe Trp Ile
1805                245                250                255
1807 Asn Thr Asp Asp Arg Asp Val Ile Arg Tyr Leu Lys Tyr Phe Thr Phe
1808                260                265                270
1810 Leu Ser Lys Glu Glu Ile Glu Ala Leu Glu Gln Glu Leu Arg Glu Ala
1811                275                280                285
1813 Pro Glu Lys Arg Ala Ala Gln Lys Ala Leu Ala Glu Glu Val Thr Lys
1814                290                295                300
1816 Leu Val His Gly Glu Glu Ala Leu Arg Gln Ala Ile Arg Ile Ser Glu
1817 305                310                315                320
1819 Ala Leu Phe Ser Gly Asp Ile Ala Asn Leu Thr Ala Ala Glu Ile Glu
1820                325                330                335
1822 Gln Gly Phe Lys Asp Val Pro Ser Phe Val His Glu Gly Gly Asp Val
1823                340                345                350
1825 Pro Leu Val Glu Leu Leu Val Ser Ala Gly Ile Ser Pro Ser Lys Arg
1826                355                360                365
1828 Gln Ala Arg Glu Asp Ile Gln Asn Gly Ala Ile Tyr Val Asn Gly Glu
1829                370                375                380
1831 Arg Leu Gln Asp Val Gly Ala Ile Leu Thr Ala Glu His Arg Leu Glu
1832 385                390                395                400
1834 Gly Arg Phe Thr Val Ile Arg Arg Gly Lys Lys Lys Tyr Tyr Leu Ile
1835                405                410                415
1837 Arg Tyr Ala

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E--X 1840 1

→ Please delete the extraneous numeral at the end of the file. It is causing an invalid amino acid count for sequence #29.

VERIFICATION SUMMARY

DATE: 05/14/2001

PATENT APPLICATION: US/09/846,589

TIME: 12:50:56

Input Set : A:\BB-1191 DIV SEQ LIST.txt

Output Set: N:\CRF3\05142001\I846589.raw.

L:10 M:270 C: Current Application Number differs, Replaced Application Number
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:14 M:256 W: Invalid Numeric Header Field, Wrong Prior FILING DATE:YYYY-MM-DD
L:1840 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:29